IN THE CLAIMS

Page 21, line 1, change "Claims" to --What is claimed is:--.

Claims 1-19 (cancelled).

20. (New) A method for processing digital source signals comprising the following steps:

digitizing analog source signals;

transforming the digitized source signals from the time domain to the spherical domain, wherein the transformation is a D-dimensional transformation with $D>2$; and

logarithmic quantizing the radius in the spherical domain.

21. (New) The method according to claim 20, wherein a transformation of the source signals into spherical coordinates is carried out.

22. (New) The method according to claim 21, wherein a logarithmic quantization of the amount is carried out in spherical coordinates.

23. (New) The method according to claim 21, wherein a non-uniform quantization of the angle coordinates of the spherical coordinates is carried out.

24. (New) The method according to claim 20, comprising the steps of quantizing the analog source signals in polar coordinates, wherein the amount of the source signals in polar coordinates is logarithmically quantized, and wherein the quantization of the angle in polar coordinates of the analog source signals is carried out depending on the quantized angle of higher order.

25. (New) The method according to claim 24, wherein the quantization of a D-dimensional sphere with a unit radius is carried out by a network of $D-1$-dimensional cubes.

26. (New) The method according to claim 24, wherein those quantization cells which lie on the surface of a sphere with unit radius are selected, wherein the

quantization cells are $D-1$-dimensional cubes.

27. (New) The method for the compression of analog signals, comprising the steps of carrying out a digitization of analog source signals by a method according to claim 20, and carrying out a differential pulse code modulation.

28. (New) The method according to claim 27, comprising the steps of carrying out a forward prediction for determining a starting value for samples of the quantization based on the current state of a predictor filter, reconstructing the subsequent D samples, carrying out a D-dimensional logarithmic spherical quantization of the values obtained by the forward prediction in order to determine a starting cell, iterative run-through of the prediction of the differential pulse code modulation in order to determine a quantization cell with the smallest quantization error.

29. (New) The method according to claim 27, wherein a lattice decoding is carried out for determining a favorable quantization cell.

30. (New) The method according to claim 27, wherein a backward prediction of a differential pulse code modulation is carried out, wherein an updating of the prediction filter by D steps is carried out after processing D samples.

31. (New) An apparatus for processing digital source signals comprising:

means for the digitization of analog source signals;

means for the transformation of the digitized source signals from the time domain to the spherical domain, wherein the transformation is a D-dimensional transformation with $D>2$; and

means for the logarithmic quantization of the radius in the spherical domain.

32. (New) Apparatus according to claim 31, with a transformation device for carrying out a transformation of the analog source signals in spherical coordinates.

33. (New) Apparatus according to claim 31, wherein a logarithmic

quantization of the amount is carried out.

34. (New) Apparatus according to claim 32, wherein a non-uniform quantization of the angle coordinates of the spherical coordinates is carried out.

35. (New) Apparatus for the compression of analog signals with an apparatus for the digitization of analog signals according to claim 31 and an encoder for differential pulse code modulation.

36. (New) Apparatus according to claim 35, with a forward prediction device for determining a starting value for the samples of the quantization based on the current state of a predictor filter, a reconstruction device for reconstructing the subsequent D samples, a D-dimensional logarithmic spherical quantization device for quantizing the values obtained by the forward prediction in order to determine a starting cell, wherein the prediction of the differential pulse code modulation is run through iteratively in order to determine a quantization cell with the smallest quantization error.

37. (New) Apparatus according to claim 36, wherein a lattice decoding device is carried out for determining a favorable quantization cell.

38. (New) Apparatus according to claim 36, wherein a backward prediction of a differential pulse code modulation is carried out, wherein the prediction filter is updated by D steps after processing D samples.